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=> s aivlosin  
L1 1 ATVLOSLN

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FILE COVERS 1907 - 1 Nov 2007 VOL 147 ISS 20  
FILE LAST UPDATED: 1 Nov 2007 (20071101/ED)

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=> s 11  
L2 10 L1

=> d 12 1-10

L2 ANSWER 1 OF 10 CA COPYRIGHT 2007 ACS on STN  
AN 147:339535 CA  
TI In vitro susceptibility of avian mycoplasma isolated in 1987 and 1999 in Taiwan and standard strains against 47 antimicrobials  
AU Lin, Maw-Yeong; Tung, Ming-Chun; Tseng, Tsu-Chin; Ke, Guan-Ming; Tsai, Ming-Cheng  
CS Department of Veterinary Medicine, National Pingtung University of Science and Technology, Neipu, Pingtung, 91201, Taiwan  
SO Taiwan Shouyixue Zazhi (2006), 32(4), 233-247  
CODEN: TSZAAK; ISSN: 1682-6485  
PB Chinese Society of Veterinary Science  
DT Journal  
LA English

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 10 CA COPYRIGHT 2007 ACS on STN  
AN 146:201405 CA  
TI Quality-control ranges for antimicrobial susceptibility testing by broth dilution of the *Brachyspira hyodysenteriae* type strain (ATCC 27164T)  
AU Pringle, M.; Aarestrup, F. M.; Bergsjo, B.; Fossi, M.; Jouy, E.; Landen, A.; Mevius, D.; Perry, K.; Teale, C.; Thomson, J.; Skrzypczak, T.; Veldman, K.; Franklin, A.  
CS National Veterinary Institute, Uppsala, Swed.  
SO Microbial Drug Resistance (New Rochelle, NY, United States) (2006), 12(3), 219-221  
CODEN: MDREFJ; ISSN: 1076-6294  
PB Mary Ann Liebert, Inc.  
DT Journal  
LA English

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 10 CA COPYRIGHT 2007 ACS on STN  
AN 145:162966 CA  
TI Tiamulin resistance in porcine *Brachyspira pilosicoli* isolates  
AU Pringle, M.; Landen, A.; Franklin, A.  
CS Department of Antibiotics, National Veterinary Institute, Uppsala, SE-751 89, Swed.  
SO Research in Veterinary Science (2005), Volume Date 2006, 80(1), 1-4  
CODEN: RVTSA9; ISSN: 0034-5288  
PB Elsevier B.V.  
DT Journal  
LA English

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 10 CA COPYRIGHT 2007 ACS on STN  
AN 142:107365 CA  
TI Aivlosin for the treatment of disease due to *brachyspira pilosicoli* or *ornithobacterium rhinotracheale*  
IN Sanders, Michael  
PA Eco Animal Health Limited, UK  
SO PCT Int. Appl., 19 pp.  
CODEN: PIXXD2

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005002593	A1	20050113	WO 2004-GB2887	20040705
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2530922	A1	20050113	CA 2004-2530922	20040705
	EP 1641469	A1	20060405	EP 2004-743233	20040705
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	CN 1812796	A	20060802	CN 2004-80018398	20040705
	BR 2004012288	A	20060919	BR 2004-12288	20040705
	JP 2007516945	T	20070628	JP 2006-518340	20040705
	MX 2005PA13703	A	20060308	MX 2005-PA13703	20051215
	IN 2005KN02706	A	20061027	IN 2005-KN2706	20051226
	US 2006166905	A1	20060727	US 2006-563210	20060103
PRAI	GB 2003-15629	A	20030703		
	WO 2004-GB2887	W	20040705		

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 10 CA COPYRIGHT 2007 ACS on STN  
AN 141:136895 CA  
TI Further characterization of porcine *Brachyspira hyodysenteriae* isolates with decreased susceptibility to tiamulin  
AU Karlsson, M.; Aspan, A.; Landen, A.; Franklin, A.  
CS Department of Antibiotics, National Veterinary Institute, Uppsala, SE-751 89, Swed.  
SO Journal of Medical Microbiology (2004), 53(4), 281-285  
CODEN: JMMIAV; ISSN: 0022-2615  
PB Society for General Microbiology  
DT Journal  
LA English  
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 6 OF 10 CA COPYRIGHT 2007 ACS on STN  
AN 136:335214 CA  
TI Use of Aivlosin for treatment and prophylaxis of diseases and infections of pigs and poultry  
IN Sanders, Michael John  
PA Eco Animal Health Ltd., UK  
SO PCT Int. Appl., 19 pp.

CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002032233	A2	20020425	WO 2001-GB4575	20011015
	WO 2002032233	A3	20020801		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2425319	A1	20020425	CA 2001-2425319	20011015
AU 200195722	A	20020429	AU 2001-95722	20011015
EP 1326599	A2	20030716	EP 2001-976452	20011015
EP 1326599	B1	20061213		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001014703	A	20031223	BR 2001-14703	20011015
CN 1469742	A	20040121	CN 2001-817368	20011015
JP 2004511498	T	20040415	JP 2002-535483	20011015
CN 1771980	A	20060517	CN 2005-10089368	20011015
CN 1803140	A	20060719	CN 2005-10091094	20011015
CN 1803141	A	20060719	CN 2005-10091095	20011015
CN 1803142	A	20060719	CN 2005-10091096	20011015
CN 1853644	A	20061101	CN 2005-10091086	20011015
AT 347888	T	20070115	AT 2001-976452	20011015
ES 2278788	T3	20070816	ES 2001-1976452	20011015
US 2004082524	A1	20040429	US 2003-398086	20030331
IN 2003DN00519	A	20070119	IN 2003-DN519	20030407
MX 2003PA03309	A	20030619	MX 2003-PA3309	20030415
US 2006247184	A1	20061102	US 2006-479721	20060630
PRAI	GB 2000-25556	A	20001018	
	CN 2001-817368	A3	20011015	
	WO 2001-GB4575	W	20011015	
	US 2003-398086	A1	20030331	

L2 ANSWER 7 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 130:217665 CA

TI Studies on efficacy and establishment of withdrawal time of acetyl isovaleryl tylosin tartrate and chlortetracycline combination for bacterial pneumonia therapy in swine: I. Antimicrobial activity of acetyl isovaleryl tylosin tartrate and chlortetracycline combination in vitro

AU Lee, Mun-Han; Cho, Seung-Kun; Lee, Hang; Ryu, Pan-Dong; Cho, Myeng-Haing; Park, Jong-Myung; Chung, Gab-Soo; Park, Sang-Ju

CS College of Veterinary Medicine, Seoul National University, S. Korea

SO Soul Taehakkyo Suuidae Nonmunjip (1997), 22(1), 57-62

CODEN: SUJSEZ; ISSN: 1226-8984

PB Seoul National University, College of Veterinary Medicine

DT Journal

LA Korean

L2 ANSWER 8 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 130:191458 CA

TI Studies on efficacy and establishment of withdrawal time of acetyl isovaleryl tylosin tartrate and chlortetracycline combination therapy in swine. III. Establishment of withdrawal time of acetyl isovaleryl tylosin tartrate and chlortetracycline combination

AU Lee, Mun-Han; Cho, Seung-Kun; Lee, Hang; Rhu, Pan-Dong; Cho, Myeng-Haing; Na, Hong-Chae; Lee, Hoo-Jang; Park, Jong-Myeng; Chung, Kap-Su; Park, Sang-Ju

CS College of Veterinary Medicine, Seoul National University, S. Korea

SO Soul Taehakkyo Suuidae Nonmunjip (1998), 23(1), 25-34

CODEN: SUJSEZ; ISSN: 1226-8984

PB Seoul National University, College of Veterinary Medicine

DT Journal

LA Korean

L2 ANSWER 9 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 130:177172 CA  
 TI Studies on efficacy and establishment of withdrawal time of acetyl isovaleryl tylosin tartrate and chlortetracycline combination therapy in swine, II. Field efficacy trials of acetyl isovaleryl tylosin tartrate and chlortetracycline combination  
 AU Cho, Seung-Kun; Lee, Mun-Han; Lee, Hang; Ryu, Pan-Dong; Cho, Myeng-Hang; Na, Hong-Chae; Lee, Hoo-Jang; Park, Jong-Myeng; Chung, Kap-Su; Park, Sang-Ju  
 CS Livestock Technology Institute, ORD, S. Korea  
 SO Soul Taehakkyo Suuidae Nonmunjip (1998), 23(1), 19-24  
 CODEN: SUJSEZ; ISSN: 1226-8984  
 PB Seoul National University, College of Veterinary Medicine  
 DT Journal  
 LA Korean

L2 ANSWER 10 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 87:100671 CA

TI Tylosin derivatives

IN Okamoto, Rokuo; Fukumoto, Tsumoru; Tacamatsu, Akira; Takeuchi, Tomio

PA Sanraku-Ocean Co., Ltd., Japan

SO Ger. Offen., 91 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2634499	A1	19770310	DE 1976-2634499	19760731
	DE 2634499	C2	19820519		
	JP 52018889	A	19770212	JP 1975-93053	19750801
	JP 52034983	A	19770317	JP 1975-110010	19750912
	JP 52082790	A	19770711	JP 1975-158388	19751227
	JP 52139088	A	19771119	JP 1976-55626	19760515
	JP 55023272	B	19800621		
	CH 619267	A5	19800915	CH 1976-9460	19760723
	SE 7608448	A	19770202	SE 1976-8448	19760726
	SE 441598	B	19851021		
	SE 441598	C	19860130		
	GB 1539907	A	19790207	GB 1976-31117	19760726
	NL 7608411	A	19770203	NL 1976-8411	19760729
	NL 176087	B	19840917		
	NL 176087	C	19850218		
	FR 2319374	A1	19770225	FR 1976-23268	19760729
	FR 2319374	B1	19781117		
	DK 7603449	A	19770202	DK 1976-3449	19760730
	DK 151262	B	19871116		
	DK 151262	C	19880502		
	BR 7605024	A	19770809	BR 1976-5024	19760730
	ES 450333	A1	19771116	ES 1976-450333	19760730
	CA 1063954	A1	19791009	CA 1976-258132	19760730
	BE 849847	A1	19770415	BE 1976-173623	19761224
	US 4201843	A	19800506	US 1978-881279	19780227
	PRAI	JP 1975-93053	A	19750801	
		JP 1975-110010	A	19750912	
		JP 1975-158388	A	19751227	
	JP 1976-55626	A	19760515		
	US 1976-708151	A3	19760723		
OS	MARPAT	87:100671			

=> d 12 1-10 an ab

L2 ANSWER 1 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 147:339535 CA

AB In order to clarify the inhibitory activity of the antimicrobial agents against avian mycoplasmas isolated in Taiwan at present and past status, forty-seven antimicrobials were incorporated individually or in combination into Frey's mycoplasma agar to evaluate their inhibitory activity against forty 1999-isolates, and ten 1987-isolates of local poultry origins as well as 10 standard strains of variant serotypes of avian mycoplasmas. Fourteen antimicrobials that possessed an MIC<sub>50</sub> less than 50 µg/mL or lower against the 1999-isolates in decreasing order of activity were aivlosin (0.12 µg/mL), tiamulin (0.72), lincomycin (1.95), danofloxacin (2.3), kitasamycin (4.0), spectinomycin (4.96), thiamphenicol (5.6), chloramphenicol (7.2), streptomycin (8), florphenicol (11.27), ofloxacin (14.2), and tylosin (19), erythromycin (32.0), and spiramycin (32). The above 14 anti-microbials are currently effective in the control of mycoplasmosis in poultry in Taiwan. Notably, there were 18 and 21 antimicrobials that possessed an MIC<sub>50</sub> of 50 µg/mL or less against the 1987-isolates and standard strains, resp. Most of the antimicrobials gradually lost of their inhibitory activity, except amikacin and apramycin. Synergistic effects were ascertained with erythromycin-flor-fenicol (1:1), florfenicol-tylosin (1:1) and lincomycin-spectinomycin (1:1 and 1:2) mixts. These mixts. provide good strategy to improve therapeutic efficacy against mycoplasmosis in poultry.

L2 ANSWER 2 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 146:201405 CA

AB There are no approved stds. for antimicrobial susceptibility testing of the fastidious spirochete *Brachyspira hyodysenteriae*. An interlab. study was performed to establish MIC quality control ranges for six antimicrobial agents for the type strain of *B. hyodysenteriae* using broth dilution. The results showed that *B. hyodysenteriae* B78T ATCC 27164T is a suitable quality control strain. This is a first step toward standardization of methods regarding this anaerobe.

L2 ANSWER 3 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 145:162966 CA

AB There are few studies on antimicrobial susceptibility of *Brachyspira pilosicoli*, therefore this study was performed to investigate the situation among isolates from pigs. The tiamulin and tylosin susceptibility was determined by broth dilution for 93 and 86 porcine *B. pilosicoli* isolates, resp. The isolates came from clin. samples taken in Swedish pig herds during the years 2002 and 2003. The tylosin minimal inhibitory concentration (MIC) was >16 µg/mL for 50% (n = 43) of the isolates tested. A tiamulin MIC >2 µg/mL was obtained for 14% (n = 13) of the isolates and these were also tested against doxycycline, salinomycin, valnemulin, lincomycin and aivlosin. For these isolates the susceptibility to salinomycin and doxycycline was high but the MICs for aivlosin varied. The relationship between the 13 tiamulin resistant isolates was analyzed by pulsed-field gel electrophoresis (PFGE). Among the 13 isolates 10 different PFGE patterns were identified.

L2 ANSWER 4 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 142:107365 CA

AB The invention relates to the use of Aivlosin for the treatment, prevention or control of diseases due to *Brachyspira pilosicoli* in pigs and *Ornithobacterium rhinotracheiae* in poultry.

L2 ANSWER 5 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 141:136895 CA

AB *Brachyspira hyodysenteriae* is the causative agent of swine dysentery, a severe diarrheal disease in pigs. Few drugs are available to treat the disease, owing to both antimicrobial resistance and withdrawal of drugs authorized for use in pigs. Tiamulin is the drug of choice in many countries, but isolates with decreased susceptibility have recently been reported. The mechanism of tiamulin resistance in *B. hyodysenteriae* is not known and this facet is essential to understand the dissemination of

the trait. To study the resistance epidemiol. of *B. hyodysenteriae*, further characterization of a set of isolates from Germany (n = 16) and the UK (n = 6) with decreased susceptibility to tiamulin was performed. The relatedness between the isolates was studied by comparing PFGE patterns, and the in vitro susceptibility to 5 other antimicrobials (aivlosin, doxycycline, salinomycin, chloramphenicol, and avilamycin) was also determined. For comparison of the antimicrobial-susceptibility pattern, Swedish (n = 20) and British (n = 4) tiamulin-susceptible isolates were tested. The German isolates represented several different PFGE patterns, indicating that tiamulin usage has been sufficient to select clones with decreased tiamulin susceptibility at different farms in Germany. The PFGE pattern for the six British isolates with decreased tiamulin susceptibility was identical to that of the German isolates, and they had a similar antimicrobial-susceptibility pattern, except for resistance to aivlosin, which was only found in a few German isolates. No other co-resistance with tiamulin was found.

L2 ANSWER 6 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 136:335214 CA

AB The invention discloses the use of aivlosin, as such or as a pharmacol. acceptable (non-toxic) derivative such as an acid addition salt, for the preparation

of a veterinary medicament for the treatment or prophylaxis of diseases and infections of pigs and poultry. In particular the diseases and infections treatable are necrotic enteritis in poultry and *Lawsonia* infections, *Mycoplasma* diseases and swine dysentery in pigs.

L2 ANSWER 7 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 130:217665 CA

AB Acetyl isovaleryl tylosin tartrate (AIV) is a new macrolide antibiotics developed recently by Takeda Chemical Industries Ltd., Japan. Antimicrobial activities of AIV and chlortetracycline (CTC) combination (1:6) were evaluated in vitro against organisms isolated from pigs and compared with those of AIV and CTC. The tested organisms were *Pasteurella multocida* (17 isolates), *Bordetella bronchiseptica* (19 isolates), *Actinobacillus pleuropneumoniae* (18 isolates), *Haemophilus parasuis* (18 isolates), *Streptococcus suis* (22 isolates) and *Mycoplasma hyopneumoniae* (15 isolates). Sensivities of *P. multocida*, *B. bronchiseptica*, *A. pleuropneumoniae*, *H. parasuis* and *S. suis* were 63.apprx.88% to CTC, whereas that of *M. hyopneumoniae* was 46%. AIV was less sensitive to most of organisms tested except to *M. hyopneumoniae* (93%). CTC plus AIV combination was sensitive to all of the organisms tested. MIC of CTC plus AIV combination in the organisms tested revealed that it is more efficacious than CTC and AIV alone.

L2 ANSWER 8 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 130:191458 CA

AB Acetylisovaleryl tylosin tartrate (AIV) is a new macrolide antibiotics developed by Takeda Chemical Industries Ltd., Japan and introduced to Korea recently. In previous reports, AIV and chlortetracycline (CTC) combination (50+300 ppm) was susceptible to most of organisms in vitro which caused pneumonopathy in swine and the combination was also efficacious to reduce lesion scores of lungs in field trials. AIV and CTC (50+300 ppm) was administered to 10 pigs orally for 7 days. Five pigs were sacrificed at 10th and 15th day of last treatment. Residue analyses were carried out in muscle tissue, liver, kidney and serum by HPLC and bioassay. As the results of these expts., no residue were detected in the samples obtained at 10th day of withdrawal period and the detection limits of CTC and AIV were revealed as low as 0.2 ppm. It is concluded that withdrawal time of AIV+CTC combination is within 10 days in pigs treated as a dose of 50+300 ppm in feed for 7 days.

L2 ANSWER 9 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 130:177172 CA

AB Acetyl isovaleryl tylosin tartrate (AIV) is a new macrolide antibiotics developed recently by Takeda Chemical Industries Ltd., Japan. Field trials of AIV and chlortetracycline (CTC) combination (50+300 ppm) were evaluated in pigs by comparing body weight gain, feed conversion ratio and incidence of pneumonopathy with AIV and CTC treated groups. Drugs were administered for 57 days from 35 days old. During the feeding period, body weight gains were 553 g, 516 g and 575 g in pigs administered AIV, CTC and AIV+CTC combination and the feed conversion ratios in pigs were 1.966, 1.971 and 1.941, resp. AIV+CTC combination treatment reduced pneumonopathy scores including SEP and pleuropneumonitis compared with nontreated control, AIV and CTC treated groups. These results indicate that AIV and CTC have unique antimicrobial spectra and combination of these drugs act additively to the microorganisms in vivo as well as in vitro (Lee et al. 1997).

L2 ANSWER 10 OF 10 CA COPYRIGHT 2007 ACS on STN

AN 87:100671 CA

AB The 16-membered macrolide antibiotic tylosin (I) [1401-69-0] was acylated in the 3- and 4''-positions by microorganisms of the genus *Streptomyces*. Thus, 15 L of a sterile medium (pH 7.0) containing soybean meal 2, glucose 2, yeast extract 0.1, K<sub>2</sub>HPO<sub>4</sub> 0.05, MgSO<sub>4</sub>·7H<sub>2</sub>O 0.05, and antifoam 0.05 g/dL was inoculated with 100 mL of a 1-day-old seed culture on the same medium and cultured for 1 day at 37° until the glucose concentration reached 0.3 g/dL. I 60 g and 15 g DL-norvaline [760-78-1] as a butyryl donor group was then added and the mixture reacted for 6 h further. The culture was then acidified and extracted with benzene and the benzene layer further extracted with citrate buffer, pH 3.5. The aqueous layer was extracted with EtOAc and concentrated to dryness to yield 5 g gold-brown material containing 4'''-butyryltylosin (II) [63409-09-6].

=> s brachyspira and pilosicoli

230 BRACHYSPIRA

96 PILOSICOLI

L3 91 BRACHYSPIRA AND PILOSICOLI

=> s l3 and tylosin

2072 TYLOSIN

L4 5 L3 AND TYLOSIN

=> d 14 1-5

L4 ANSWER 1 OF 5 CA COPYRIGHT 2007 ACS on STN

AN 145:266601 CA

TI Antimicrobial susceptibility testing of *Brachyspira intermedia* and *Brachyspira pilosicoli* isolates from Australian chickens

AU Hampson, D. J.; Stephens, C. P.; Oxberry, S. L.

CS School of Veterinary and Biomedical Sciences, Murdoch University, Murdoch, 6150, Australia

SO Avian Pathology (2006), 35(1), 12-16  
CODEN: AVPADN; ISSN: 0307-9457

PB Taylor & Francis Ltd.

DT Journal

LA English

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 5 CA COPYRIGHT 2007 ACS on STN

AN 145:162966 CA

TI Tiamulin resistance in porcine *Brachyspira pilosicoli* isolates

AU Pringle, M.; Landen, A.; Franklin, A.

CS Department of Antibiotics, National Veterinary Institute, Uppsala, SE-751

89, Swed.

SO Research in Veterinary Science (2005), Volume Date 2006, 80(1), 1-4  
'CODEN: RVTSA9; ISSN: 0034-5288  
PB Elsevier B.V.  
DT Journal  
LA English

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 5 CA COPYRIGHT 2007 ACS on STN  
AN 144:365818 CA  
TI Assessment of diagnostics and antimicrobial susceptibility testing of  
Brachyspira species using a ring test  
AU Rasbaeck, T.; Fellstroem, C.; Bergsjo, B.; Cizek, A.; Collin, K.;  
Gunnarsson, A.; Jensen, S. M.; Mars, A.; Thomson, J.; Vyt, P.; Pringle, M.  
CS Swedish University of Agricultural Sciences, SLU, Uppsala, SE-75007, Swed.  
SO Veterinary Microbiology (2005), 109(3-4), 229-243  
CODEN: VMICDQ; ISSN: 0378-1135  
PB Elsevier B.V.  
DT Journal  
LA English

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 5 CA COPYRIGHT 2007 ACS on STN  
AN 142:3296 CA  
TI Antimicrobial Resistance in Brachyspira pilosicoli  
with Special Reference to Point Mutations in the 23S rRNA Gene Associated  
with Macrolide and Lincosamide Resistance  
AU Karlsson, M.; Fellstroem, C.; Johansson, K.-E.; Franklin, A.  
CS Department of Antibiotics, National Veterinary Institute, Uppsala, Swed.  
SO Microbial Drug Resistance (Larchmont, NY, United States) (2004), 10(3),  
204-208  
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PB Mary Ann Liebert, Inc.  
DT Journal  
LA English

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 5 CA COPYRIGHT 2007 ACS on STN  
AN 128:123798 CA  
TI Veterinary use of a pleuromutilin derivative  
IN Burch, David George Sidney; Ripley, Paul Howard; Zeisl, Erich  
PA Biochemie G.m.b.H., Austria; Burch, David George Sidney; Ripley, Paul  
Howard; Zeisl, Erich  
SO PCT Int. Appl., 45 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9801127	A1	19980115	WO 1997-EP3518	19970703
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	ZA 9705934	A	19980105	ZA 1997-5934	19970703
	CA 2256514	A1	19980115	CA 1997-2256514	19970703

CA 2256514	C	20061128		
AU 9736929	A	19980202	AU 1997-36929	19970703
AU 718701	B2	20000420		
EP 910363	A1	19990428	EP 1997-933652	19970703
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO				
CN 1223576	A	19990721	CN 1997-196038	19970703
CN 1121216	B	20030917		
BR 9710208	A	19990810	BR 1997-10208	19970703
HU 9903103	A2	20000228	HU 1999-3103	19970703
HU 9903103	A3	20000428		
NZ 333261	A	20000929	NZ 1997-333261	19970703
JP 2000514072	T	20001024	JP 1998-504763	19970703
RU 2197237	C2	20030127	RU 1999-102247	19970703
IL 127299	A	20050517	IL 1997-127299	19970703
PL 189204	B1	20050729	PL 1997-330726	19970703
SK 285711	B6	20070607	SK 1999-27	19970703
EP 1808171	A1	20070718	EP 2006-127213	19970703
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, RO, SI				
EP 1810672	A1	20070725	EP 2006-127211	19970703
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, RO, SI				
EP 1813272	A1	20070801	EP 2006-127207	19970703
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, RO, SI				
SK 285857	B6	20070906	SK 2006-5098	19970703
CZ 298385	B6	20070919	CZ 1998-4381	19970703
CZ 298444	B6	20071003	CZ 2007-2	19970703
CZ 298445	B6	20071003	CZ 2007-3	19970703
CZ 298446	B6	20071003	CZ 2007-4	19970703
TW 410221	B	20001101	TW 1997-86111743	19970814
BG 64369	B1	20041230	BG 1998-103002	19981208
NO 9806198	A	19981230	NO 1998-6198	19981230
KR 2000022561	A	20000425	KR 1998-711009	19981231
US 6130250	A	20001010	US 1999-214164	19990702
PRAI	GB 1996-14012	A	19960704	
	GB 1996-14013	A	19960704	
	GB 1996-14014	A	19960704	
	GB 1996-14015	A	19960704	
	GB 1996-14016	A	19960704	
	GB 1996-14017	A	19960704	
	GB 1996-14018	A	19960704	
	GB 1996-14019	A	19960704	
	EP 1997-933652	A3	19970703	
	WO 1997-EP3518	W	19970703	

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 14 1-5 an ab

L4 ANSWER 1 OF 5 CA COPYRIGHT 2007 ACS on STN  
AN 145:266601 CA

AB Susceptibilities of predominantly Australian isolates of the pathogenic intestinal spirochaetes *Brachyspira intermedia* (n=25) and *Brachyspira pilosicoli* (n=17) from chickens were tested in agar dilution against four concns. each of the antimicrobials tiamulin, lincomycin, tylosin, metronidazole, tetracycline and ampicillin. Based on available min. inhibitory concentration (MIC) breakpoint values for *Brachyspira hyodysenteriae* or other Gram-neg. enteric veterinary pathogens, isolates of both species generally were susceptible to tiamulin, lincomycin, metronidazole and tetracycline. Although not classed as resistant, four isolates of *B. intermedia* had an elevated MIC

range for tiamulin (1 to 4 mg/l), 11 isolates of *B. intermedia* and five of *B. pilosicoli* had an elevated MIC range for lincomycin (10 to 50 mg/l), one isolate of *B. pilosicoli* had an elevated MIC range for tetracycline (10 to 20 mg/l), and one isolate of *B. intermedia* and five of *B. pilosicoli* had an elevated MIC range for ampicillin (10 to 50 mg/l). A clear lack of susceptibility to tylosin (MIC>4 mg/l) was seen in 11 isolates each of *B. intermedia* and *B. pilosicoli*, and to ampicillin (MIC>32 mg/l) in two isolates of *B. pilosicoli*. These data suggest that some resistance to common antimicrobials exists among intestinal spirochetes obtained from laying hens and supports the need of MIC data for clin. isolates before any treatment is considered.

L4 ANSWER 2 OF 5 CA COPYRIGHT 2007 ACS on STN  
AN 145:162966 CA

AB There are few studies on antimicrobial susceptibility of *Brachyspira pilosicoli*, therefore this study was performed to investigate the situation among isolates from pigs. The tiamulin and tylosin susceptibility was determined by broth dilution for 93 and 86 porcine *B. pilosicoli* isolates, resp. The isolates came from clin. samples taken in Swedish pig herds during the years 2002 and 2003. The tylosin minimal inhibitory concentration (MIC) was >16  $\mu$ g/mL for 50% (n = 43) of the isolates tested. A tiamulin MIC >2  $\mu$ g/mL was obtained for 14% (n = 13) of the isolates and these were also tested against doxycycline, salinomycin, valnemulin, lincomycin and aivlosin. For these isolates the susceptibility to salinomycin and doxycycline was high but the MICs for aivlosin varied. The relationship between the 13 tiamulin resistant isolates was analyzed by pulsed-field gel electrophoresis (PFGE). Among the 13 isolates 10 different PFGE patterns were identified.

L4 ANSWER 3 OF 5 CA COPYRIGHT 2007 ACS on STN  
AN 144:365818 CA

AB There is no ring test for quality assessment available in Europe for diagnostics and antimicrobial susceptibility testing of the fastidious, anaerobic bacteria of the genus *Brachyspira*. Therefore, an international ring test for *Brachyspira* spp. was performed once a year during 2002-2004. Two sets of coded samples were prepared and distributed on each occasion. One set comprised six swabs dipped in pig feces spiked with *Brachyspira* spp. intended for diagnostics. The other set comprised two pure strains intended only for susceptibility testing. All methods used were inhouse methods. The species used were *Brachyspira hyodysenteriae*, *Brachyspira pilosicoli*, *Brachyspira innocens*, *Brachyspira murdochii* and *Brachyspira intermedia*. In most cases, the correct *Brachyspira* spp. were detected. However, the results showed that *Brachyspira* spp. could be difficult to identify, especially if two *Brachyspira* spp. were mixed or if the concentration of *Brachyspira* in feces was low. Addnl., some labs. reported *Brachyspira* growth in control samples that were not seeded with any spirochaetes. The lowest detection level was 102 bacteria/mL feces for both *B. hyodysenteriae* and *B. pilosicoli*. The susceptibility tests performed showed that disk diffusion was not recommendable for *Brachyspira* spp. Extended antimicrobial dilution series gave most congruent results. The diversity of the results highlights the importance of ring tests for a high quality of diagnostics and antimicrobial susceptibility tests for *Brachyspira* spp. This is the first ring test described for *Brachyspira* spp.

L4 ANSWER 4 OF 5 CA COPYRIGHT 2007 ACS on STN  
AN 142:3296 CA

AB A point mutation in the 23S rRNA gene causes macrolide and lincosamide resistance in *Brachyspira hyodysenteriae*. The possible occurrence of a similar mutation in *Brachyspira*

pilosicoli was studied and the MICs of 6 antimicrobial agents for Swedish field isolates of *B. pilosicoli* were determined. Of 10 isolates with high MICs of macrolide and lincosamide antibiotics, six had a mutation in nucleotide position 2058 or 2059 in the 23S rRNA gene as compared to the wild type of *Escherichia coli*, whereas none of 10 tylosin-susceptible isolates were mutated in this region. The mutations found in position 2058 were A → T transversions, and in position 2059 either A → G transitions or A → C transversions. The MICs at which 90% of the *B. pilosicoli* field isolates were inhibited by tylosin, erythromycin, clindamycin, virginiamycin, tiamulin, and carbadox, were >256, >256, >4, 4, 2, and 0.125 µg/mL, resp. In conclusion, point mutations in positions 2058 and 2059 of the 23S rRNA gene can cause macrolide and lincosamide resistance in *B. pilosicoli*. Macrolide resistance is widespread among Swedish field isolates of *B. pilosicoli*. Notably also a few isolates with elevated MICs of tiamulin were found.

L4 ANSWER 5 OF 5 CA COPYRIGHT 2007 ACS on STN

AN 128:123798 CA

AB Use of valnemulin is provided in the therapy of veterinary diseases, the expression of which is enhanced by increasing stocking d. Valnemulin may be used e.g. in the therapy of enzootic pneumonia in swine caused by *Mycoplasma hyopneumoniae* infection.

=> s ornithobacterium and rhinotracheale

34 ORNITHOBACTERIUM

31 RHINOTRACHEALE

L5 31 ORNITHOBACTERIUM AND RHINOTRACHEALE

=> s 15 and tylisin

2072 TYLOSIN

L6 1 L5 AND TYLOSIN

=> d 16

L6 ANSWER 1 OF 1 CA COPYRIGHT 2007 ACS on STN

AN 135:134558 CA

TI Antibiotic sensitivity and resistance in *Ornithobacterium rhinotracheale* strains from Belgian broiler chickens

AU Devriese, L. A.; De Herdt, P.; Haesebrouck, F.

CS Faculty of Veterinary Medicine, Department of Pathology, Bacteriology and Poultry Diseases, Ghent University, Merelbeke, B-9820, Belg.

SO Avian Pathology (2001), 30(3), 197-200

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PB Carfax Publishing

DT Journal

LA English

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 16 an ab

L6 ANSWER 1 OF 1 CA COPYRIGHT 2007 ACS on STN

AN 135:134558 CA

AB Establishing the antibiotic sensitivity of the avian respiratory pathogen *Ornithobacterium rhinotracheale* is difficult because of the organism's complex growth requirements and the unusually frequent occurrence of resistance. The minimal inhibitory concns. of 10 antibiotics were determined for 45 strains of *O. rhinotracheale* from Belgian broiler chickens collected from 45 farms between 1995 and 1998. They were compared with the type strain, which was isolated from a turkey, and a strain isolated from a rook. All the broiler strains were resistant

to lincomycin and to the  $\beta$ -lactams ampicillin and ceftiofur. Less than 10% of the strains were sensitive to the macrolides tylosin and spiramycin, tilmicosin, and flumequine. A few strains were sensitive to enrofloxacin and doxycycline. All strains were sensitive to tiamulin.